

What is claimed is:

1. A heating system for a vehicle, comprising:
 - a reformer arrangement (12) for producing hydrogen from a hydrocarbon/mixed material mixture,
 - a burner arrangement (14) for reception of hydrogen produced in the reformer arrangement (12) and combustion thereof, and
 - a heat exchanger arrangement (16) for transferring combustion heat produced in the burner arrangement (14) to a heating medium.
2. The heating system as claimed in claim 1, wherein a flame trap (22) is arranged between the reformer arrangement (12) and a combustion chamber (24) of the burner arrangement (14).
3. The heating system as claimed in claim 1, wherein hydrogen feeding means (14, 16; 52, 54, 58) are provided for feeding hydrogen produced in the reformer arrangement (12) to at least one further hydrogen-consuming system (46, 60).
4. The heating system as claimed in claim 3, wherein the at least one further hydrogen-consuming system (46, 60) comprises an exhaust-gas after-treatment system (46) for at least one of an internal combustion engine (44) and a fuel cell (60).
5. The heating system as claimed in claim 3, wherein the hydrogen feeding means (52, 54, 58) comprise hydrogen distributing means (52) for distributing hydrogen produced in the reformer arrangement (12) to the burner arrangement (14) and the at least one further hydrogen-consuming system (46, 60).
6. The heating system as claimed in claim 5, wherein the ratio of distribution of the hydrogen distributing means (52) can be changed.

7. The heating system as claimed in claim 3, wherein the hydrogen feeding means (14, 16) connect an outlet region of the burner arrangement (14) to the at least one further hydrogen-consuming system (46).